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A NEW RACE OF *DIPodomys* AND A NEW RACE OF *Thomomys* FROM ARIZONA

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Over a period of years there has been accumulated in the mammal collection of the San Diego Society of Natural History a series of specimens of *Dipodomys deserti* from southcentral Arizona and of *Thomomys bottae* from desert ranges in western Arizona bordering the Colorado River. The study of this material reveals sufficient characters in two geographic populations to indicate them as worthy of descriptions and new names. The *Dipodomys* may be known as

Dipodomys deserti arizonae, subsp. nov.

ARIZONA DESERT KANGAROO RAT

Type.—From 3 miles southeast of Picacho, Pinal County, Arizona; No. 12532 Collection of the San Diego Society of Natural History; adult male, collected by Laurence M. Huey, May 14, 1937.

Characters.—Compared with *Dipodomys deserti deserti*, *D. d. arizonae* is grayish in color instead of buffy; it has a well marked undertail stripe in most specimens examined. The skull is smaller, with noticeably more rounded, inflated bullae and with a more slender rostrum. The maxillary arches of *D. d. arizonae* are more sharply angled with the axis of the skull than in either *Dipodomys deserti sonoriensis* or *D. d. deserti*. Compared with *D. d. sonoriensis*, *D. d. arizonae* is lighter in color dorsally, with a tinge of buffy suffusion on the sides that is not present on the specimens of *D. d. sonoriensis* examined. The skull of *D. d. arizonae* differs from that of *D. d. sonoriensis* in having more rounded and massive bullae, heavier molar teeth, and wider maxillary arches.

Measurements of type.—Total length, 345; tail, 193; hind foot, 52; ear, 14. Skull: Greatest length, 45.3; width across bullae, 30.8; spread

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of maxillary arches, 23.7; greatest length of nasals, 16.2; width of maxillary arch at middle, 6.5.

Remarks.—Specimens of the race herewith named were first reported in 1937, from the Picacho area by Willett (Jour. Mamm. 18: 101). Since that year the writer has, at every opportunity, collected specimens of this species. Prior to and during this period, 139 skins and skulls have been accumulated from localities in Death Valley, Inyo County, California, and from southern Nevada southward to San Felipe, Baja California, Mexico, on the western side of the Colorado River, and from southwestern Arizona to Kino Bay, Sonora, Mexico, on the eastern side of the river. This assemblage has revealed interesting range boundaries and variations in several characters of this large Kangaroo rat. Oddly enough, the largest development in size has been found in the population living near Welton in the extremely arid southwestern section of Arizona. The further collection of specimens of comparable age may reveal this population to differ from the population of the Mojave desert region of California from whence the nominate race was named.

Range and specimens examined.—*D. d. arizonae*:—Arizona: 3 miles southeast of Picacho, Pinal Co., 18 (Type locality); 11 miles west of Casa Grande, Pinal Co., 11; 10 miles south of Gila Bend, Maricopa Co., 3 (not typical); 7 miles east of Papago Well, Pima Co., 2 (not typical).

D. d. sonoriensis:—Mexico: Kino Bay, Sonora, 10.

D. d. deserti:—Mexico: Punta Peñascosa, Sonora, 17. Arizona: Old quarry near Yuma, 1; 6 miles east of Yuma, 1; south end of Tule Desert, Yuma Co., 1; Quitovaquito, Pima Co., 1; Welton, Yuma Co., 20. Nevada: Coyote Spring, Lincoln Co., 1. California: Mesquite Flat, 8 miles north of Stovepipe Well, Death Valley, 2; Mesquite Spring, north end of Death Valley, 6; 4 miles north of Keeler, Inyo Co., 6; Mojave River, San Bernardino Co., 1 (topotype); Whitewater, San Geronimo Pass, Riverside Co., 1; Palm Springs, Riverside Co., 2; Borego Valley, San Diego Co., 4; La Puerta Valley, San Diego Co., 10; Carrizo Creek, San Diego Co., 3; Laguna, Colorado Desert (Imperial Co.), 2; Coyote Wells, Colorado Desert (Imperial Co.), 1; 1 mile west of Pilot Knob, Imperial Co., 1. Mexico: De Mara's Well, Laguna Salada, Baja California, 5; 40 miles north of San Felipe, Baja California, 1; 30 miles north of San Felipe, Baja California, 1; San Felipe, Baja California, 7.

The *Thomomys* may be known as

Thomomys bottae cedrinus subsp. nov.

CHEMEHUEVIS MOUNTAIN POCKET GOPHER

Type.—From summit of Crossman Peak, (Juniper—Piñon Belt), Chemehuevis Mountains, Mohave County, Arizona; No. 13161 Collection of the San Diego Society of Natural History; adult female; collected by Laurence M. Huey, April 27, 1938.

Characters.—Compared with *Thomomys bottae desertorum*, its nearest comparatum, which abounds in the valley floor regions to the north and east of the Chemehuevis Mountains, *T. b. cedrinus* is smaller in size and more brightly colored dorsally. The upper parts are bright deeply shaded buff, which extends well down onto the sides. There is a sprinkling of blackish hairs on the upper median surface. The undercoat is dark bluish-gray. The muzzle and fairly large auricular areas are black. The ears are small. The skull differs from that of *T. b. desertorum* in being slightly smaller and lighter boned, with zygomatic arches less sharply angled from the axis of the skull; they broaden in spread anteriorly. The rostrum is more slender and auditory bullae are larger and more roundly inflated.

Measurements.—Type: Total length, 182; tail, 53; hind foot, 24; ear, 4. Skull: Greatest length, 34.0; spread of maxillary arches 20.2; length of nasals, 12.1; interorbital constriction, 6.7; alveolar length of upper molar series, 8.1.

Range.—So far as is now known, from the summit and north slope of Crossman Peak, Chemehuevis Mountains, to the vicinity of the Lucky Star Mine on the lower slopes of the range, all within the Juniper-Piñon Belt.

Remarks.—This newly named race is a dwarf mountain-top gopher. It is found living in shallow rocky soils within the piñon-juniper area of this desert mountain range.

Specimens examined.—*T. b. cedrinus*: Summit of Crossman Peak, 4 (including type); Lucky Star Mine, 4.

T. b. desertorum: 1 mile south of Yucca, Mohave Co., 1; 3 miles south of Yucca, Mohave Co., 2; 12 miles south of Yucca, Mohave Co., 3 (all collected in a sandy, desert valley—cactus—yucca association).

Thomomys bottae desitus: Wickiup (Big Sandy River), Mohave Co., 13.

Thomomys bottae hualpaiensis: Democrat Mine, Hualpai Mountains, Mohave Co., 14.

